

REMARKS

Claims 1-61 are pending in this application. By this Amendment, claims 2, 12, 13 and 30 are amended to correct informalities. Claims 2 and 12 are amended to remove the underlining of the character "m." No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Chu in the September 3 personal interview.

Objection

The Office Action objects to claim 30 as including an informality. Claim 30 has been amended to recite "performs multilevel modulation of," thus eliminating the informality. Accordingly, withdrawal of the objection is respectfully requested.

Rejection Under 35 U.S.C. §102(b)

The Office Action rejects claims 30-34 under 35 U.S.C. §102(b) over U.S. Patent 4,551,819 to Michl et al. ("Michl"). Applicants respectfully traverse the rejection.

Michl does not disclose each and every element of claim 30. Claim 30 recites "[a]n optical recording apparatus comprising: a light source that generates recording light; a spatial optical modulator that controllably rotates a polarization angle of said recording light; and a focusing optical system that performs multilevel modulation of an azimuth of an optical recording layer within an optical recording medium by directing the recording light obtained through the spatial optical modulator to the optical recording medium" (emphasis added). Michl does not anticipate such an apparatus.

The Office Action asserts that Michl teaches an optical recording apparatus having all of the elements of claim 30. In particular, the Office Action asserts that Michl discloses a focusing optical system that multilevel modulates an azimuth of an optical recording layer.

Notwithstanding this assertion, nowhere does Michl disclose an optical recording apparatus including a focusing optical system that performs multilevel modulation of the azimuth of an optical recording layer.

Michl is directed to optical recording media, as well as apparatuses for recording on such media. Michl contemplates storing information on the disclosed recording media in a multilevel or analog format. *See* Abstract. However, the manner in which multilevel data storage is accomplished in Michl is distinct from the manner recited in claim 30. Michl discloses engaging in multilevel recording by modulating the "writing laser beam so as to record at different power intensities and/or different pulse lengths so as to quantitatively remove different amounts of birefringence at different positions. Then, the amount of light passing through a crossed polarizer may be measured quantitatively" (emphasis added). *See* col. 15, ll. 23-28. By contrast, the apparatus of claim 30 includes a focusing optical system that performs multilevel modulation of an azimuth of an optical recording layer. Accordingly, the claimed apparatus does not modify recording media to modulate the quantity of light that can pass through recording media as in Michl, but rather the azimuth of that light. Nothing in Michl remotely teaches or suggests such an apparatus.

Claim 30 is not anticipated by Michl. Claims 31-34 depend from claim 30, and thus, also are not anticipated by Michl. Accordingly, reconsideration and withdrawal of the rejection of claims 30-34 as anticipated by Michl are respectfully requested.

Rejection Under 35 U.S.C. §103(a)

The Office Action rejects claims 1-29 and 35-61 under 35 U.S.C. §103(a) over U.S. Patent 5,251,197 to Leube et al. ("Leube") in view of Michl. Applicants respectfully traverse the rejection.

Leube does not teach or suggest each and every feature of rejected claims. Michl does not cure the deficiencies of Leube. Each of the claims 1-29 and 35-61 recites, in one

form or another, that the azimuth of the recording medium is multilevel modulated. For example, claim 1 recites "[a]n optical recording medium ... wherein an azimuth of the half-wave plate within the optical recording medium is multilevel-modulated so that information is recorded on the optical recording medium by the recording light." Similarly, claim 22 recites "[a]n optical recording method ... wherein the azimuth corresponding to a polarization angle on the optical recording medium is multilevel-modulated so that information is recorded on the optical recording medium by the recording light," and claim 46 recites "[a]n optical reproducing apparatus ... wherein the reproducing light is directed on the optical recording medium in which an azimuth of the half-wave plate within the optical recording medium has been multilevel-modulated so that recorded information can be reproduced." The combination of Leube and Michl does not render obvious such media, methods or apparatuses.

The Office Action concedes that Leube does not teach or suggest media, methods or apparatuses in which the azimuth of a recording medium is multilevel-modulated. The Office Action argues, however, that Michl remedies the deficiencies of Leube by teaching multilevel modulation of azimuths. As explained above, Michl includes no such teaching. Michl teaches multilevel data storage through quantitative removal different amounts of birefringence from a medium at different positions so that differing amounts of light passing through the medium can be measured. The claimed media, methods and apparatuses do not involve modification of recording media to alter the quantity of light that can pass through the media as in Michl, but rather modification of recording media to alter the azimuth of that light. Nothing in Michl teaches or suggests such media, methods and apparatuses.

For at least these reasons, the combination of Leube and Michl does not teach, disclose or suggest all of the features of claims 1-29 and 35-61. Thus, the combination of Leube and Michl does not render obvious the subject matter of claims 1-29 and 35-61.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-29 and 35-61 as unpatentable over the combination of Leube and Michl are respectfully requested.

Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-61 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: September 4, 2003

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